



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,232	06/30/2003	Jac-Yong Park	053785-5133	1756

9629 7590 09/21/2005

MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER
----------

RIELLEY, ELIZABETH A

ART UNIT	PAPER NUMBER
----------	--------------

2879

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,232

Applicant(s)

PARK ET AL.

Examiner

Elizabeth A. Rielley

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date all.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

The amendment filed 7/5/05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the limitation of a planarization layer encapsulating end portion of the color filter layer and the black matrix layer has not been introduced previously into the specification. It is noted that the planarization layer disposed on a color filter layer and the black matrix layer has been discussed in the outstanding specification; however, the term "encapsulating" gives a different meaning to the planarization layer that has not been disclosed to date.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-10, 12, 13, 15-17, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (US 20010026127) in view of Okamoto et al (US 5543685) and Salerno et al (US 5661371).

In regard to claim 1, Yoneda et al ('127) teaches an organic electroluminescent display device, (figure 2) comprising: first and second substrates bonded together (2, 21; paragraphs 34, 38 and 20; the Examiner notes that the "bonded together" limitation is not in the figures, see paragraph 20), the first and second substrates having a plurality of pixel regions (abstract); a plurality of driving elements (3, 4, 5, 6, 7, 8; paragraphs 34-35) on an inner surface of the first substrate (2) within each of the plurality of pixel regions; a plurality of connection electrodes contacting the driving elements (9; paragraph 36); a black matrix (23) on an inner surface of the second substrate (21) at a boundary of each of the plurality of pixel regions (paragraph 39); a color filter layer including red (24R), green (24G), and blue (24B) color filters on the inner surface of the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); a first electrode on the black matrix and the color filter layer (17); an organic electroluminescent layer (14; paragraph 36) on the first electrode; and at least one second electrode (12) on the organic electroluminescent layer, wherein the at least one second electrode contacts the connection electrodes (9; paragraph 36). Yoneda et al ('127) are silent regarding the limitation of a planarization layer encapsulating end portions of the color filter layer and the black matrix and forming an electrode on the planarization layer. Okamoto et al ('685) teaches a planarization layer (3; figure 1; abstract) between the first electrode (7) and the color filter layer (R, G, B), the planarization layer includes a transparent insulating material (abstract) in order to protect the electrodes and the filters (abstract; column 3 lines 44-50 and column 4 lines 19-25). Salerno et al ('371) teach a planarization layer (1038; figure 25E; column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form

a high quality display. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno and the electrodes of Okamoto. Motivation to combine would be to produce a higher quality display and to protect the electrodes and the filters.

In regard to claims 2 and 13, Yoneda et al ('127) teaches the organic electroluminescent layer (14) includes an organic material emitting white light (paragraph 42).

In regard to claims 4 and 15, Yoneda et al ('127) teaches a plurality of sidewalls (18) on the first electrode (17) corresponding to the black matrix (23; paragraph 37).

In regard to claims 5 and 16, Yoneda/Salerno/Okamoto describe all the limitations set forth, as described above, including; Okamoto et al ('685) teaches a planarization layer (3; figure 1; abstract) between the first electrode (7) and the color filter layer (R, G, B), the planarization layer includes a transparent insulating material (abstract) in order to protect the electrodes and the filters (abstract; column 3 lines 44-50 and column 4 lines 19-25). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the organic EL device of Yoneda/Salerno with the planarization layer of Okamoto et al ('685). Motivation would be to protect the electrodes and the filters.

In regard to claim 6, Yoneda et al ('127) teaches the first electrode includes one of an indium-tin-oxide (ITO) or an indium-zinc-oxide (IZO) (paragraph 36).

In regard to claim 7, Yoneda et al ('127) teaches at least one second electrode includes at least one of aluminum (Al), calcium (Ca), magnesium (Mg), and lithium (Li) (paragraph 36).

In regard to claims 8 and 17, Yoneda et al ('127) teaches the organic electroluminescent layer includes a hole-transporting layer (15) and an electron-transporting layer (13; paragraph 36).

In regard to claim 9, Yoneda et al ('127) teaches at least one second electrode (12) includes a plurality of the second electrodes (see figure 2).

In regard to claim 10, Yoneda et al ('127) teaches each of the plurality of second electrodes (12) contact each of the connection electrodes (9; paragraph 36).

In regard to claim 12, Yoneda et al ('127) teaches a method of fabricating an organic electroluminescent display device, comprising: forming a plurality of driving elements (3-8; figure 2; paragraphs 34-35) on a first substrate (2) having a plurality of pixel regions (1); forming a connection pattern contacting the driving elements (9); forming black matrix (23) on a second substrate (21) having the plurality of pixel regions (10, the black matrix being formed along a boundary of each of the plurality of pixel regions (paragraph 39); forming a color filter layer including red, green, and blue color filters on a second substrate (22), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); forming a first electrode (17) on the black matrix (23; paragraph 20) and the color filter layer (22); forming an organic electroluminescent layer (14) on the first electrode (17); forming at least one second electrode (12) on the organic electroluminescent layer; and bonding the first and second substrates together (paragraph 20), wherein the connection pattern (9) contacts the at least one second electrode (12). Yoneda et al ('127) are silent regarding the limitation of forming a planarization layer encapsulating end portions of the color filter layer and the black matrix and forming a first electrode on the planarization layer Salerno et al ('371) teach a forming a planarization layer (1038; figure 25E;

Art Unit: 2879

column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form a high quality display. Okamoto et al ('685) teaches a forming planarization layer (3; figure 1; abstract) between the formed first electrode (7) and the color filter layer (R, G, B), the planarization layer includes a transparent insulating material (abstract) in order to protect the electrodes and the filters (abstract; column 3 lines 44-50 and column 4 lines 19-25). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno. Motivation to combine would be to produce a higher quality display and to protect the electrodes and the filters.

In regard to claim 32, Yoneda et al ('127) teaches an organic electroluminescent display device (figure 2), comprising: a plurality of driving elements (3, 4, 5, 6, 7, 8; paragraphs 34-35) on an inner surface of a first substrate (2) within each of a plurality of pixel regions (paragraph 39); a plurality of connection electrodes (9) contacting the driving elements; a black matrix (23) on an inner surface of the second substrate (21) at a boundary of each of the plurality of pixel regions (paragraph 39); a color filter layer (22R,G,B) including red, green, and blue color filters on the inner surface of the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); a first electrode (17) on the black matrix and the color filter layer; an organic electroluminescent layer (14) on the first electrode; and a plurality of second electrodes (12) on the organic electroluminescent layer, wherein each of the second electrodes contact one of the connection electrodes (9); and the first and second substrates (2, 21) are spaced apart from each other by a distance that includes the plurality of connection electrodes (9; see figures 2 and 3). Yoneda et al are silent regarding the limitation of a planarization layer encapsulating end portions of the color filter layer and the black matrix and forming an electrode on the planarization layer. Okamoto et al ('685) teaches a planarization layer (3; figure 1; abstract) between the first electrode (7) and the color filter layer (R, G,

B), the planarization layer includes a transparent insulating material (abstract) in order to protect the electrodes and the filters (abstract; column 3 lines 44-50 and column 4 lines 19-25). Salerno et al ('371) teach a planarization layer (1038; figure 25E; column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form a high quality display. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno and the electrodes of Okamoto. Motivation to combine would be to produce a higher quality display and to protect the electrodes and the filters.

In regard to claim 33, Yoneda et al ('127) teaches an organic electroluminescent display device (figure 2; paragraphs 33 to 39), comprising: a plurality of driving elements (3, 4, 5, 6, 7, 8; paragraphs 34-35) on an inner surface of a first substrate (2) within each of a plurality of pixel regions (paragraph 39); a plurality of connection electrodes (9) contacting the driving elements; a black matrix (23) on an inner surface of the second substrate (21) at a boundary of each of the plurality of pixel regions (paragraph 39); a color filter layer (22) including red, green, and blue color filters on the inner surface of the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); a first electrode on the black matrix (17) and the color filter layer (22); a plurality of sidewalls (18) on the first electrode corresponding to the black matrix; a plurality of organic electroluminescent layer segments (13-16) on the first electrode (17) between the sidewalls (18), each of the organic electroluminescent segments include a hole-transporting layer (15) and an electron-transporting layer (13); and a plurality of second electrodes (12) each on one of the organic electroluminescent layer segments (13), wherein each of the second electrodes contact one of the connection electrodes (9). Yoneda et al are silent regarding the limitation of a planarization layer encapsulating end portions of the color filter layer and the black matrix and forming an electrode on the



Art Unit: 2879

planarization layer. Okamoto et al ('685) teaches a planarization layer (3; figure 1; abstract) between the first electrode (7) and the color filter layer (R, G, B), the planarization layer includes a transparent insulating material (abstract) in order to protect the electrodes and the filters (abstract; column 3 lines 44-50 and column 4 lines 19-25). Salerno et al ('371) teach a planarization layer (1038; figure 25E; column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form a high quality display. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno and the electrodes of Okamoto. Motivation to combine would be to produce a higher quality display and to protect the electrodes and the filters.

In regard to claim 34, Yoneda et al ('127) teach an organic electroluminescent display device (figure 2), comprising: a plurality of driving elements (3, 4, 5, 6, 7, 8; paragraphs 34-35) on an inner surface of a first substrate within each of a plurality of pixel regions (paragraph 39); a plurality of first electrodes (9) contacting each of the driving elements; a black matrix (23) on an inner surface of the second substrate (21) at a boundary of each of the plurality of pixel regions (paragraph 39); a color filter layer (22) including red, green, and blue color filters on the inner surface of the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); a second electrode (37); and an organic electroluminescent layer (34) on the second electrode (37), wherein the organic electroluminescent layer contacts each of the first plurality of electrodes (via 37; paragraph 39). Yoneda is silent regarding the limitation of a planarization layer on the black matrix and the color filter layer and the second electrode located on the planarization layer. Okamoto et al ('685) teaches a planarization layer (3; figure 1; abstract), and an electrode located on the planarization layer (7; column 3 lines 44-50 and column 4 lines 19-25) in order to protect the electrodes and the filters (abstract). Hence, it would have been obvious at the time of the invention to one of

Art Unit: 2879

ordinary skill in the art to combine the organic EL device of Yoneda/Salerno with the planarization layer of Okamoto et al ('685). Motivation would be to protect the electrodes and the filters.

Claims 18, 19, 21-28, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (US 20010026127) in view of Salerno et al (US 5661371).

In regard to claim 18, Yoneda et al ('127) teaches an organic electroluminescent display device (figure 2), comprising: first and second substrates bonded together (2, 21; paragraphs 34, 38 and 20; the Examiner notes that the "bonded together" limitation is not in the figures, see paragraph 20), the first and second substrates having a plurality of pixel regions (1; paragraph 39); a plurality of driving elements (3, 4, 5, 6, 7, 8; paragraphs 34-35) on an inner surface of the first substrate (2) within each of the plurality of pixel regions; a first electrode connected to the driving elements (9; paragraph 36); an organic electroluminescent layer on the first electrode (14); at least one second electrode on the organic electroluminescent layer (17); a black matrix (23) on an inner surface of the second substrate (20) along a boundary of each of the plurality of pixel regions (paragraph 39); and a color filter layer (22R,G,B) including red, green, and blue color filters on the inner surface of the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39). Yoneda et al ('127) are silent regarding the limitation of a planarization layer encapsulating end portions of the color filter layer and the black matrix. Salerno et al ('371) teach a planarization layer (1038; figure 25E; column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form a high quality display. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno. Motivation to combine would be to produce a higher quality display.

In regard to claims 19 and 28, Yoneda et al ('127) teaches the organic electroluminescent layer (14) includes an organic material emitting white light (paragraph 42).

In regard to claims 21 and 30, Yoneda et al ('127) teaches a plurality of sidewalls (18) on the first electrode (17) corresponding to the black matrix (23; paragraph 37).

In regard to claim 22, Yoneda et al ('127) teaches the first electrode includes one of an indium-tin-oxide (ITO) or an indium-zinc-oxide (IZO) (paragraph 36).

In regard to claims 23 and 31, Yoneda et al ('127) teaches the organic electroluminescent layer includes a hole-transporting layer (15) and an electron-transporting layer (13; paragraph 36).

In regard to claim 24, Yoneda et al ('127) teaches at least one second electrode includes at least one of aluminum (Al), calcium (Ca), magnesium (Mg), and lithium (Li) (paragraph 36).

In regard to claim 25, Yoneda et al ('127) teaches at least one second electrode (12) includes a plurality of the second electrodes (see figure 2).

In regard to claim 26, Yoneda et al ('127) teaches each of the plurality of second electrodes (12) contact each of the connection electrodes (9; paragraph 36).

In regard to claim 27, Yoneda et al ('127) teaches a method of fabricating an organic electroluminescent display device (figure 2), comprising: forming a plurality of driving elements (3-8;

paragraphs 34-35) on a first substrate (2) having a plurality of pixel regions (1); forming a first electrode (12) connected to the driving elements (via 9; paragraph 35); forming an organic electroluminescent layer (14) on the first electrode (12); forming a second electrode on the organic electroluminescent layer (17); forming a black matrix (23) on a second substrate (21) having the plurality of pixel regions (1), the black matrix being formed along a boundary of each of the plurality of pixel regions (39); forming a color filter layer including red, green, and blue color filters (22) on the second substrate (21), each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions (paragraph 39); and bonding the first and second substrates together (paragraph 20), wherein the color filter layer (22) faces the second electrode (17). Yoneda is silent regarding the limitation of forming a planarization layer encapsulating end portions of the color filter layer and the black matrix. Salerno et al ('371) teach forming a planarization layer (1038; figure 25E; column 28 line 64 to column 29 line 26) encapsulating end portions of the color filter layer (1034) and the black matrix (1036; labeled in figure 25D) in order to form a high quality display. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the display of Yoneda with the planarization layer of Salerno. Motivation to combine would be to produce a higher quality display.

Claims 3 and 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (US 20010026127) in view of Okamoto et al (US 5543685) and Salerno et al (US 5661371) and in further view of Shirasaki et al (US 5834894).

In regard to claims 3 and 14 Yoneda/Okamoto/Salerno describe all the limitations set forth, as described above, except the organic electroluminescent layer includes an organic material emitting red, green, and blue colored light corresponding to each of the red, green, and blue color filters. Shirasaki et al ('894) teaches the organic electroluminescent layer (65; figure 13; column 9 lines 5-6) includes an

Art Unit: 2879

organic material emitting red, green, and blue colored light (65R,G,B) corresponding to each of the red, green, and blue color filters (63R,G,B; column 9 lines 34-42) in order to produce a more vibrant light from each pixel. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the organic EL device of Yoneda/Salerno/Okamoto with the corresponding el and filter layers of Shirasaki et al ("894). Motivation would be to produce a more vibrant light from each pixel.

Claims 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (US 20010026127) in view of Salerno et al (US 5661371) and in further view of Shirasaki et al (US 5834894).

In regard to claims 20 and 29, Yoneda/Salerno describe all the limitations set forth, as described above, except the organic electroluminescent layer includes an organic material emitting red, green, and blue colored light corresponding to each of the red, green, and blue color filters. Shirasaki et al ('894) teaches the organic electroluminescent layer (65; figure 13; column 9 lines 5-6) includes an organic material emitting red, green, and blue colored light (65R,G,B) corresponding to each of the red, green, and blue color filters (63R,G,B; column 9 lines 34-42) in order to produce a more vibrant light from each pixel. Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the organic EL device of Yoneda/Salerno with the corresponding el and filter layers of Shirasaki et al ("894). Motivation would be to produce a more vibrant light from each pixel.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda et al (US 20010026127) in view of Okamoto et al (US 5543685) and Salerno et al (US 5661371) and in further view of Kanai et al (US 6121727).

Yoneda/Salerno describe all the limitations set forth, as described above, except the second electrodes include a double-layered structure including lithium flourine and aluminum. Kanai et al ('727) teaches electrodes including a double-layered structure (4 and 5; figure 1; column 3 lines 20-25) including lithium flourine and aluminum (column 15 lines 59 - 61; column 12 lines 25-26) in order to prevent deterioration of the device (column 2 lines 6-21). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the organic EL device of Yoneda/Salerno with the electrode structure of Kanai et al ('727). Motivation would be to prevent deterioration of the device.

### ***Response to Arguments***

Applicant's arguments filed 7/5/05 have been fully considered but they are not persuasive. Applicant argues that the Prior Art of record fails to teach a planarization layer encapsulation end portions of the color filter layer and the black matrix. The Examiner respectfully disagrees. Salerno et al (US 5661371) teaches a planarization layer (1038) encapsulating the end portions of a black matrix (1036) and color filter layers (1034).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH**

shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

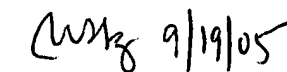
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
*Elizabeth Rielley*

*Examiner*  
*Art Unit 2879*

  
**MARICELI SANTIAGO**  
**PRIMARY EXAMINER**